

possibilities for transportation.

The sleds are very lightly built and represent true works of art. 493
The extraordinary performances in building such a "narta," as the sleds are named, consists in the fact that the only tool employed is a knife. No nails or glue are used; only simply cut wooden pegs and straps. There results from this an extraordinary elasticity, which also comes from the birch wood which is the primary material used. The type of narta for dogs is usually 2.70 to 3.00 meters long, 50 centimeters high, and 60 centimeters wide. In the runners, which are approximately 10 centimeters wide and 3 to 4 centimeters thick, there are on either side supports, which have cross-connections. On these connections thin boards are fastened lengthwise, and these boards form the floor of the narta. The front and back ends of the runners are bent up high and attached to a horizontal wooden arc, which has the same height as the boards and which forms the outer edge of the narta. The pulling straps are fastened to the front arc. The traveler either sits sideward on the narta with his legs hanging down or lies down on the sled with his legs stretched out behind him. The narta 492 has 11 to 15 dogs put to it, the number of dogs always being uneven. At the head runs the lead dog, who understands the orders of his master, who is clever, who is distinguished by his good orientation. Rescue from some danger in the vast wilderness is often due to the lead dog. The other dogs are tied in pairs to the drag line. The dog wears the pulling strap around his neck, but the strap is so arranged that the dog pulls with his chest. In order to prevent wear by rubbing /196/ the straps are wrapped in fur. So that the individual dog can't break loose sideways, each dog wears in addition a neck band which is likewise fastened to the pulling line with a light chain or a strap. A freight narta can be loaded with 2.0 to 4.5 centners. Lighter narta, which serve passenger traffic more, can as a rule not be loaded with more than 2.5 centners including the weight of the traveler. A narta with a load generally covers 4 to 6 kilometers in an hour, but with only one traveler and a team of 13 to 15 good dogs a narta can cover 10 to 12 kilometers, indeed even up to 16 kilometers in an hour. With one and the same team of dogs one can with good care cover a stretch of 500 kilometers without needing to take very long rests. Castrated dogs are usually used as draft dogs; female dogs are used only rarely since they often get sick and have only slight endurance.

Of greatest importance for the carrying out of a trip is the sled leader, the "kayur." He is no driver in the usual sense. Either he stands with one leg on the sled runner and lets the other leg dangle in

•492 in the air, or he constantly runs along beside the dogs, getting their harnesses in order or helping the dogs pull the narta up a hill. He is almost constantly in conversation with the dogs, whom he spurs on with flattery or also scolding words. The dogs love to be talked to. The kayur knows his dogs and his dogs know him. It is very difficult to travel with strange dogs.

The dogs are guided only by the words of the leader or with the help of the "ostol," a 1 to 1.5 meter long birch stick. Very very seldom is this stick used to spur the dogs on. Sometimes the ostol is used to prop the narta, sometimes it is used to stop the sled in order to avoid a collision with a tree. In the forest the kayur must always be on the lookout that a bird or a wild animal does not jump out from between the trees and frighten his dogs. Then the dogs rush away, and the traveler, if he falls off the sled, is lost in the vast wilderness.

[493] A light type of narta is used as a reindeer sled in the entire coastal area of the east. These sleds differ substantially from the clumsy, heavy sleds of the Samoyed. In type of construction and in lightness this reindeer sled is like the dog sled, only the reindeer sled is higher, wider, and shorter. Usually only two reindeer are used on light trips, and in such a case the pulling line is not fastened to the front bow of the sled but rather is only drawn through it so that the two animals are forced to use the same strength in pulling. A narta with two reindeer put to it carry a load of 4 to 5 centners. For the transportation of yurts or heavy burdens large nartas are used, which are pulled by 3 or 4 or even more animals and which can carry loads of 8 to 10 centners.

Under the same conditions the reindeer narta is as a rule preferred for longer trips, since the animals provide for themselves en route, while /197/ food for the dogs, fish as a rule, has to be taken along. Travel is very difficult with loose, deep snow since the animals sink into the snow and cannot go forward. In such cases the kayur goes ahead of the sled on broad Koryak snowshoes in order to tread down a path for the draft animals--dogs and reindeers.

A trip with a narta does not belong among the pleasures of life, as a trip by sled is depicted by the European. The trip is full of anguish when the land is uneven or when the wind has covered the plains with hard snowbanks. The narta is often thrown over, the kayur who wants to help falls down, the dogs whimper and howl because they are caught under the narta, the waving back and forth and the hard bumps cause headaches and nausea.

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In mountain areas where only narrow, often steep paths are available, the beast of burden shows his real value. Only the horse is used as such; the reindeer is used very rarely since it has a backbone that is too weak and is not suitable as a draft animal. The reindeer is very rarely used as a riding animal and then only by the Lamut. The saddle is up in front on the reindeer; thus the rider sits directly over the reindeer's front legs.

Recently the horse has been adopted more and more on Kamchatka and also on the coast of the Sea of Okhotsk, and here and there it has already displaced the dog as the draft animal.

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In summer, traffic in the entire north goes into the land from the coastal localities to which the coastal steamers make runs. The distances, therefore, are not so great, and the rivers make possible a further penetration into the interior.

The Kolyma has acquired a special significance in this connection; it is regularly traveled every summer to supply the gold districts. To be sure, the period when the river is navigable lasts only approximately three months. If, however, the entire coastal strip is covered with ice in winter and entire sections of the sea become ice wastelands, then the old means of transportation--dog sleds and reindeer sleds--still come into their right even today.

Sea Transportation and Ice Conditions along the Coast

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The extensive coasts of the Far Eastern regions are above all designed for sea transportation. This applies primarily to the entire coast north of the mouth of the Amur; the localities along this coast have only a very slight economic hinterland behind them or no such hinterland at all, and, therefore, in their development, indeed in part even in their obtaining supplies, these localities have been dependent on the sea route alone, which for most of them signifies the sole connection with the outside world. But the coastal localities of the Sikhote-Alin', too, have no built-up and easily passable land routes over the mountains to the thickly populated Ussuri-Khanka depression, and, accordingly, an exchange of goods for these localities is likewise only possible by the sea route. With /198/ this striking importance of sea transportation it is understandable that the Soviet Union has striven with all its powers to build up and to develop sea transportation. Unfortunately, as has already been brought out in the discussion of the climatic conditions, nature is not favorable to sea transportation on